

ORIGINAL

ABSTRACT

TOWER BARREL, WIND TOWER AND WIND POWER PLANT FOR WIND ELECTRIC POWER GENERATION

A tower barrel for wind electric power generation includes a barrel wall (11) for supporting a wind generator set, a torsion cable direction-changing means (12) which is placed in the tower barrel and fixed on the barrel wall for holding the cable (16) from the wind generator set and restraining the torsion of the cable, and a cable clamp (15) which is placed under the torsion cable direction-changing means and connects to the barrel wall for securing the cable. The torsion cable direction-changing means includes a beam and two supports for the beam, the supports are fixed on the barrel wall. The torsion cable direction-changing means in the tower barrel improves the safety of the cable, and so improves the safety of the wind generator set. **Figure 1** is the representative figure.

We claim:

1. A tower barrel for wind electric power generation, characterized by comprising:

a barrel wall for supporting a wind turbine generator system,

a torsion cable direction-changing device which is placed in the tower barrel and fixed on the barrel wall for holding the cable from the wind turbine generator system and restraining the torsion of the cable, and the cable hangs down by a certain length before wound with the torsion cable direction-changing device, and

cable clamps which are placed under the torsion cable direction-changing device and connected to the barrel wall for securing the cable,

the torsion cable direction-changing device comprising a beam and two supports for supporting the beam, and the supports are fixed on the barrel wall.

2. The tower barrel for wind electric power generation as claimed in claim 1, characterized in that adjustment portions for adjusting the position of the beam are provided on the supports, and the both ends of the beam are connected to the adjustment portions.

3. The tower barrel for wind electric power generation as claimed in claim 1, characterized in that the beam has a circular or elliptic cross-section.

4. The tower barrel for wind electric power generation as claimed in claim 2, characterized in that the adjustment portions are through holes.

5. The tower barrel for wind electric power generation as claimed in claim 4, characterized in that the number of the through holes is two.

6. The tower barrel for wind electric power generation as claimed in any one of claims 1-5, characterized in that the beam comprises a metal pipe and a screw rod, a metal plate having a connecting hole is provided at each end of the metal pipe, the metal pipe is sleeved on the screw rod, and the both ends of the screw rods are respectively fixed on the supports through the connecting holes.

7. The tower barrel for wind electric power generation as claimed in claim 6, characterized in that the metal pipe is a steel pipe and the metal plate is a steel plate.

8. The tower barrel for wind electric power generation as claimed in claim 6, characterized in that the number of the screw rods is two.

9. The tower barrel for wind electric power generation as claimed in any one of claims 1-5, characterized in that the number of the torsion cable direction-changing device is plurality.

10. A wind tower for wind electric power generation, characterized by comprising the tower barrel for wind electric power generation as claimed in any one of claims 1-9.

11. A wind power plant comprising a wind turbine generator system, characterized in that the wind power plant further comprises the wind tower for wind electric power generation as claimed in claim 10 for supporting the wind turbine generator system.

Dated this 29th day of March, 2012.



(SHIVARPITA NAILWAL)
PATENT AGENT
For: Worldwide Intellec

